

# Exploring the Association between the Fear of Rides and the Rate of Breathing: A Comprehensive Analysis of relation of Anxiety and Fear Responses due to riding to the Respiratory Patterns

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## ABSTRACT

The key purpose of the present study was to appraise the association between the fear of rides with rate of breathing at normal. 120 subjects, who were the students of Bahauddin Zakariya University, took part in this study. The normal rate of inhalation shows the health of a person. The increase or decrease level of breathing shows the abnormal state of the medical condition of body. The fear of rides is fundamentally the combination of various other phobias such as phobias of height and dark places, etc. We concluded that people with higher rate of breathing are more afraid of rides and vice versa.

**Keywords:** Inhalation; Exhalation; Phobia of rides; Relationship; Rate of breathing; Respiratory response; Heart rate; Ride-induced fear; Adrenaline response; Fear and respiratory rate; Anxiety and respiration; Emotional response to rides; Ride-related anxiety.

## 1. Introduction

The breathing rate of a person refers to the number of breaths a person takes in one minute. Normally, the normal rate of breathing is 14 to 25 times per 60 seconds. The main purpose of measuring the rate of respiration is to predict whether the body is medically fit or not. When the breathing rate is higher than the normal the condition is known as tachypnea while when the rate is lower than the normal the situation is known as bradypnea [1],[2]. Excessively high rate of breathing can cause the low level of carbon dioxide in the body and the condition of hyperventilation. The breathing rate below 12 and above 25 is considered as abnormal. The rate of respiration may increase or decrease due to the abnormal health complications. People suffer from a large number of breathing disorders such as asthma, chronic pulmonary disorder, pulmonary embolism and many more. Due to emotional disturbance, the rate of breathing can also be disturbed [3],[4].

The phobia of rides is just a slang term used to describe the fear suffered by the person when he takes the rides. Dizziness and the unusual feeling of fear and uneasiness are some of the symptoms of this phobia. Those people who have the fear of heightened places and close dark rooms are usually more afraid of rides as compared to those who are not afraid of such things. It has been observed that this kind of phobia has not yet caused any death. Those people who are suffering from such phobias can easily get them treated. This can be done with the help of any close friend or relative who can help them to overcome such fears. Psychiatric help can also do this kind of task. The most important thing needed to overcome such fear is the self-will of a person. When a person himself fights with his inner fears, he can easily overcome such phobias [5],[6].

### 1.1. Study Objectives

The main objection of this investigation is to evaluate the connection between the rate of respiration and the fear of rides. In detail, the objectives may be included: (1) To determine the Rate of breathing; (2) To determine the

Respiratory response; (3) To know the Ride-induced fear in students; (4) To show the relation of fear and respiratory rate; (5) To know the Emotional response to rides and their differences between male and female.

## 2. Materials and Methods

We measured the rate of breathing per minute of the subjects. All the subjects come to us one by one. By using stopwatch, we measured the number of inhalation and exhalation of the subjects.

### 2.1. Study Design

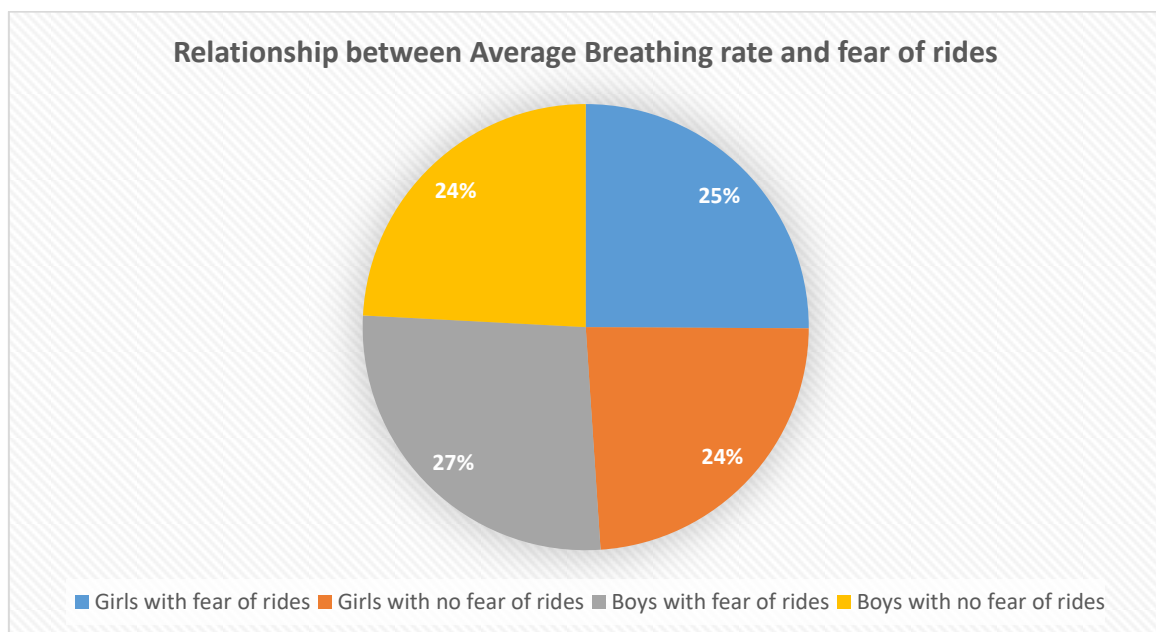
We prepared a questionnaire and we included the questions having relation with the rate of breathing and fear of rides. The subjects come to us and after measuring the breathing rate, we gave them the questionnaire so that they can fill it. After that the results were drawn from them.

### 2.2. Statistical Analysis

For the purpose of statistical analysis, the results, the application of Mstat was used by us. The average values were determined. T. test was done and the  $p$  values show that the results were significant.

## 3. Results and Discussions

The results have shown it clearly that those girls whose breathing rate is 25 or high are more afraid of rides as compared to those whose rate of breathing is 2 or low. Those boys whose rate of respiration is 27 or high are more afraid of rides as compared to those whose rate of respiration is 24 or less. The  $p$  value shows that the results are significant.



**Graph 1.** Relationship between average breathing rate and fear of rides

It is clear from the results that out of 120 people who took part in this study almost half were afraid of rides and half were not. Those people whose rate of breathing is 21 or high are more afraid of rides while those whose rate of breathing is 20 or low are less afraid of rides. A questionnaire based studies have been given important out comes in a large number of current researches [7]-[10].

#### 4. Conclusion

It is concluded from this study that there is some significant relationship between fear of rides and rate of breathing. People with high rate of inhalation are more afraid of rides than those whose rate of respiration is low.

#### 5. Future Recommendations

The study has a great potential for advancing our understanding of the psychological effects of fear on the human body, particularly in high-stress environments like amusement park rides. Furthermore, considerate this association could have wider inferences for stress management, mental health interventions, and developing strategies to help individuals overcome or cope with anxiety in various high-pressure situations.

#### Declarations

##### Source of Funding

This study did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

##### Competing Interests Statement

The authors declare no competing financial, professional, or personal interests.

##### Consent for publication

The authors declare that they consented to the publication of this study.

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